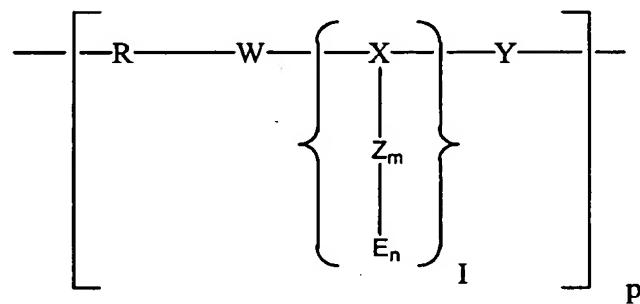


Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A combination of a carrier and a complex comprising a nucleic acid molecule and a charged copolymer of the general formula I

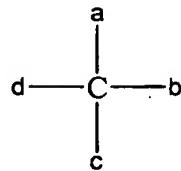


wherein R is an amphiphilic polymer or a homo- or hetero-bifunctional derivative thereof,

and wherein X

i) is an amino acid or an amino acid derivative, a peptide or a peptide derivative or a spermine or a spermidine derivative; or

ii) wherein X is



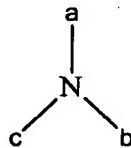
wherein

a is H or, optionally halogen- or dialkylamino-substituted, C₁-C₆ alkyl; and

wherein

b, c and d are the same or different, optionally halogen- or dialkylamino-
substituted, C₁-C₆ alkylene; or

iii) wherein X is



wherein

a is H or, optionally halogen or dialkylamino substituted, C₁-C₆-alkyl;

and wherein

a, b and c are the same or different, optionally halogen- or dialkylamino-
substituted, C₁-C₆ alkylene; or

iv) wherein X

is a substituted aromatic compound with three functional groupings W₁Y₁Z₁,
wherein W, Y and Z have the meanings mentioned below;

wherein

W, Y or Z are the same or different groups CO, NH, O or S or a linker
grouping capable of reacting with SH, OH, NH or NH₂;

and wherein the effector molecule E

is a cationic or anionic peptide or peptide derivative or a spermine or spermidine derivative or a glycosaminoglycane or a non-peptidic oligo/polycation or -anion; wherein

m and n are independently of each other 0, 1 or 2; wherein

p preferably is 3 to 20; and wherein

l is 1 to 5.

2. (Previously presented) The combination according to claim 1, wherein the amphiphilic polymer is a polyalkylene oxide.

3. (Previously presented) The combination according to claim 2, wherein the amphiphilic polymer is a polyalkylene glycol.

4. (Previously presented) The combination according to any one of claims 1 to 3, wherein X or E is a charged peptide or peptide derivative.

5. (Previously presented) The combination according to claim 1, wherein a ligand for a higher eukaryotic cell is coupled to the copolymer.

6. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the nucleic acid molecule is condensed with an organic polycation or cationic lipid molecule and the complex formed thereby has a charged copolymer of the general formula I bound to its surface via ionic interaction.

7. (Previously presented) The combination according to any one of claims 1 – 3 and 5, containing a therapeutically effective nucleic acid molecule.

8. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the carrier consists of a biologically non-resorbable material.

9. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the carrier consists of a biologically resorbable material.

10. (Original) The combination according to claim 9, wherein the biologically resorbable material is collagen.

11. (Original) The combination according to claim 10, wherein the carrier is a collagen sponge.

12. (Previously presented) The combination according to any one of claims 1 – 3 and 5, wherein the carrier is a carrier which is obtainable by cross-linkage of a copolymer as defined in claim 1.

13. (Previously presented) A method of transferring a nucleic acid molecule into a cell comprising using the combination according to any one of claims 1 – 3 and 5.

14. (Previously presented) A pharmaceutical composition comprising the combination according to any one of claims 1 – 3 and 5.

15. (Canceled).

16. (New) A kit comprising a carrier and a copolymer or a complex as defined in claim 1.

17. (New) The combination according to claim 1, wherein I is 1.

In response to the requirement, applicants elect the species where the variables in claim 1 have the following values:

R is O,O'-bis(2-aminoethyl)poly(ethylene glycol) 3400*;

W is NH;

X is 3-mercaptopropionyl-glutamic acid;

Y is NH

Z is omitted (m=0);

p is 3; and

l is 1.

* Applicants note that O,O'-bis(2-aminoethyl)polyethylene glycol 3400 is composed of a mixture of sizes based on the number of repeats in the polymer (generally 40 – 500). For purposes of this election, applicants have arbitrarily specified a polymer with 40 repeats of the base unit.

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Amendment dated August 30, 2004
Response to June 3, 2004 Office Action

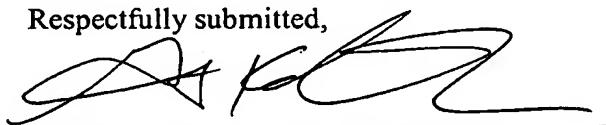
It is difficult to assign an unambiguous name to this compound, but applicants believe that the following designation would be most clear to one of skill in the art: Poly{[O,O'-bis-(2-aminoethyl)-poly(ethylene glycol)]-co-[(3-mercaptopropionyl)-glutamic acid]-graft-(Ac-Tyr-Glu₅)₂Lys-Ahx-Cys}.

Applicants election of the above-identified species is made expressly without waiver of applicants' rights to continue to prosecute and to obtain generic claims and/or to obtain claims to the non-elected species either in this application or in other applications claiming benefit herefrom.

Conclusion

Applicants request favorable consideration and early allowance of claims 1 – 14, 16, and 17.

Respectfully submitted,



James F. Haley, Jr. (Reg. No. 27,794)
Attorney for Applicants
Grant Kalinowski (Reg. No. 48,314)
Agent for Applicants

FISH & NEAVE
Customer No. 1473
1251 Avenue of the Americas
New York, New York 10020-1104
Tel.: (212) 596-9000
Fax: (212) 596-9090